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10/671,408	09/24/2003	John H. Zybura	MS1-1686US	8391
22801 7590 04/26/2010 LEE & HAYES, PLLC 601 W. RIVERSIDE AVENUE SUITE 1400 SPOKANE, WA 99201			EXAMINER	
			YEN, SYLING	
			ART UNIT	PAPER NUMBER
			2166	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhptoms@leehayes.com

	Application No.	Applicant(s)				
Office Action Summers	10/671,408	ZYBURA ET AL.				
Office Action Summary	Examiner	Art Unit				
	SYLING YEN	2166				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1)⊠ Responsive to communication(s) filed on <u>30 De</u>	ecember 2000					
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closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) Claim(s) <u>1-11,13,15,16,18-20 and 26-29</u> is/are	pending in the application.					
	4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u></u> is/are allowed. 6)⊠ Claim(s) <u>1-11, 13, 15-16, 18-20 and 26-29</u> is/are rejected.						
=\	e rejected.					
•						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa	te				

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DETAILED ACTION

Continued Examination under 37 CFR 1.114

- 1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 30, 2009 has been entered.
- 2. This action is responsive to the communication filed on December 30, 2009. Claims 1, 13 and 26-28 have been amended. Claims 12, 14, 17, 21-25 and 30-33 have cancelled. Claims 1-11, 13, 15-16, 18-20 and 26-29 are pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-2, 8, 13, 19-20, 22, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Yellepeddy et al (US Patent Application 2003/0145003 A1, hereinafter, "Yellepeddy").

5. With respect to claim 1,

Yellepeddy discloses a computer-implemented method, comprising:

receiving, by a computing device, an indication of a change to data comprising a reference attribute in a first external object in a first namespace (Yellepeddy [0040], [0054] and Fig. 1 e.g. a determination is made as to exactly which attributes are changed by the update operation, and a differential update is propagated throughout the metadirectory via direct joiner access to the data items, or through remote access such as through LDAP; and the Joiner receives changes made to a joined object [as a reference attribute in a first external object] in a directory [as first name space]), wherein the reference attribute refers to a second external object in the first namespace, the first external object and the second external object each having an associated central representation in a second namespace (Yellepeddy [0060] - [0062] and [0064] and Fig. 2-4 e.g. the Joiner merges selected data items, e.g. first name [as first external object & the reference in the first external object], title, work telephone from HR database [as first name space] to create an entry in a local table for Mr. Kent, the multiple local tables of heterogeneous directories, e.g. HR database, Notes NAB [as third name space], NT Domain Directory [as forth name space] and NW3.x Bindary [as fifth name space] are combined to create a joined table [as central

representation] which provides <u>a homogenous view</u> [as second/central name space] of the joined heterogeneous data);

evaluating, by the computing device, an association between the central representation of the second object and the second object in the first namespace to identify a third external object in a third namespace (Yellepeddy [0054], [0062] and Fig. 1 e.g. the Joiner evaluates the changes, e.g. changes made to the telephone number [as third external object] from other department, e.g. Notes NAB are valid, and then propagate them to the other directories [as a third namespace]);

reference attribute in the third external object, the reference attribute and corresponding reference attribute having different formats and the format of the corresponding reference attribute being associated with an attribute in the central representation of the second object (Yellepeddy [0078] – [0081] and Fig. 4 & 8 e.g. When the Joiner receives an update operation (81) for an entry in a directory, it performs an "apply" operation (82) on a selected entry in the metadirectory local table, creating a temporary modified entry containing the result of the update. This temporary modified entry is not written to the secondary storage (e.g. propagated to the other joined directories), however. The modified entry is compared (83) with the original (unmodified) entry to identify the differences between the original entry and the updated entry. If there are differences (84), then a differential update operation is created (86) containing only the changed fields in the entry and omitted the operations which result in no net change to a field. This differential update is then propagated (87) to the other

directories in the metadirectory, and the original (unmodified) local copy of the entry is replaced by the temporary (updated) copy of the entry. As each of the content formats of the joined objects and directories of the metadirectory may be in different formats (e.g. NAB, DB2, etc.), in order to implement the differential change to the affected items, different update operations must be executed for different format objects and directories. The differential update is propagated in a common format, preferably LDAP, and converted to the necessary format of each joined object and directory by the metadirectory agents [as discovering a format (e.g. Notes NAB) of a corresponding reference attribute in the third external object (e.g. changed fields in the entry), the reference attribute and corresponding reference attribute (e.g. the affected items) having different formats (e.g. different format) and the format of the corresponding reference attribute being associated with an attribute in the central representation (e.g. Table Joining 45 of the metadirectory Joiner 10 in Fig. 4) of the second object (e.g. joined object)]); and

propagating, by the computing device, the changed data to the third namespace to update the third external object (Yellepeddy [0054], [0062] and Fig. 1 e.g. the Joiner propagates the changes, e.g. changes made to the telephone number [as updating the third external object] and home address attributes from other department, to the other directories [as the third namespace] within the metadirectory), the propagating including retrieving a value of the attribute in the central representation of the second object and updating a value of the corresponding reference attribute in the third external object based on the retrieved value

(Yellepeddy [0081] and Fig. 4 & 8 e.g. If there are differences (84), then a differential update operation is created (86) containing only the changed fields in the entry and omitted the operations which result in no net change to a field. This differential update is then propagated (87) to the other directories in the metadirectory, and the original (unmodified) local copy of the entry is replaced by the temporary (updated) copy of the entry. As each of the content formats of the joined objects and directories of the metadirectory may be in different formats (e.g. NAB, DB2, etc.), in order to implement the differential change to the affected items, different update operations must be executed for different format objects and directories. The differential update is propagated in a common format, preferably LDAP, and converted to the necessary format of each joined object and directory by the metadirectory agents [as the propagating including retrieving a value (e.g. the differential update) of the attribute in the central representation of the second object (e.g. each joined object) and updating a value of the corresponding reference attribute (e.g. the differential update converted to the necessary format) in the third external object (e.g. the affected items) based on the retrieval value (e.g. the differential update)]).

6. With respect to claim 2,

Yellepeddy further discloses wherein the indication of the change comprises a notice that the reference to the second external object was added, modified, or deleted (see Yellepeddy [0061], where the metadirectory ("MD") may be a master, slave or peer to the managed data sources, which determines which entities may create, modify and delete data objects).

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7. With respect to claim 8,

Yellepeddy further discloses wherein the second namespace comprises a metadirectory (see Yellepeddy [0060], where the basic join operation performed by the metadirectory).

8. With respect to claim 13,

Yellepeddy further discloses wherein the format of the reference attribute requires a name of a person represented by the second object and the format of the corresponding reference attribute requires an email alias of the person represented by the second object (Yellepeddy [0054] and Fig. 2 e.g. FIG. 2 further illustrates the Join operation using an example. A human resources database may contain a first entry (22) for an employee "Clark Kent", including his employee number, surname, first name [as a name of a person "Clark Kent"], title, work telephone number, department, date of hire, salary, home address, home telephone number, and medical notes. In a Notes Name and Address book ("NAB"), there may be an entry (23) for Mr. Kent containing his user name, user short name, location of his mail server and mail file, and his email address [as the format of the corresponding reference attribute requires an email alias (e.g. his email address) for the person (e.g. Mr. Kent) represented by the second object] for external email to and from the Internet. In an NT domain directory, there may be an entry (24) for Mr. Kent including a UserID, password, ServerID, and list of groups to which he belongs. Further, in a Novellware bindary, there may be a user object and one or more routing tables (25) defining how to route messages to and from Mr. Kent.).

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9. Concerning claim 20,

The limitations therein have substantially the same scope as claim 8. Therefore claim 20 is rejected for at least the same reasons as claim 8.

10. With respect to claim 19,

Yellepeddy further discloses wherein the central representation comprises an aggregation of information from the first object and the third object (see Yellepeddy [0056], where the Joiner includes (a) disparate information sources about a single entity or common subject are grouped into a single entry in the metadirectory through linking information in multiple data into an aggregate).

11. With respect to claim 22,

Yellepeddy further discloses receiving, by a computing device, an indication of a name change (see Yellepeddy [0061], where the metadirectory ("MD") may be a master, slave or peer to the managed data sources, which determines which entities may create, modify and delete data objects) of a first referent object in a reference field of a first referent object in a first namespace, the reference field formatted in accordance with the first namespace;

propagating, by the computing device, the name change (see Yellepeddy [0078], where As previously discussed, the Joiner normally stores local copies of entries from the directories being managed by the metadirectory. When the Joiner receives an update operation (81) for an entry in a directory, it performs an "apply" operation (82) on a selected entry in the metadirectory local table, creating a temporary modified entry

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containing the result of the update) to the second referent object to update the second referent object.

12. Concerning claim 26

The limitations therein have substantially the same scope as claim 1 because claim 26 is a computer-readable medium claims for implementing those methods of claim 1. Therefore claim 26 is rejected for at least the same reasons as claim 1.

Claim Rejections - 35 USC § 103

- 13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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15. Claims 3-7, 9-11, 15, 16, 18, 23-25 and 27-29 are rejected under 35 U.S.C. 103(a) as being obvious by Yellepeddy as applied to claims 1-2, 8, 13, 19-20, 22, and 26 above, and further in view of Thatcher et al (U.S. Patent 6,061,743 hereinafter, "Thatcher").

16. With respect to claim 3,

Although Yellepeddy substantially teaches the claimed invention, Yellepeddy does not explicitly indicate evaluating correlation information that correlates objects in the first namespace with objects in the second namespace.

Thatcher teaches the limitation by stating evaluating correlation information that correlates objects in the first namespace with objects in the second namespace (Thatcher col. 2 lines 30-39 and col. 8 lines 45-61 e.g. A target object in the first namespace is selected. If the target object has an association with the second namespace, the second namespace is accessed and at least a portion of the second namespace is determined. At least a portion of the second namespace is displayed in relation to the target object; when the user requests to expand the target 51A, at least a portion of the foreign namespaces 54 will be displayed in the user interface 57 relative to the target 51A.).

It would have been obvious to one of ordinary skill in the art of namespace, at the time of the present invention, having the teachings of Yellepeddy and Thatcher before him/her, to modify the namespace method of Thatcher, wherein the method would include teachings of Thatcher because that would have allowed the method to provide the capability for aggregating disparate namespaces, independent of the type of

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namespaces, wherein each namespace does not require intimate knowledge of the other namespaces (see Thatcher col. 2 lines4-7).

17. With respect to claim 4,

Yellepeddy further discloses wherein the correlation information comprises a persistent data store that associates central representations in the second namespace with external objects in other namespaces (see Yellepeddy [0064], where These multiple local tables are then combined to created a joined table ("JT") by a table joining function (45)).

18. With respect to claim 5,

Yellepeddy further discloses wherein the association comprises a link between a unique identifier for each central representation in the second namespace and unique identifies for each external object (see Yellepeddy [0047], where a metadirectory: (c) it is able to flow a pointer such as an LDAP Universal Resource Locator ("IURL") to the information that a metadirectory must resolve for the metadirectory user).

19. With respect to claim 6,

Yellepeddy further discloses wherein the unique identifier comprises a globally unique identifier (see Yellepeddy [0047], where a metadirectory: (c) it is able to flow a pointer such as an LDAP Universal Resource Locator ("IURL") to the information that a metadirectory must resolve for the metadirectory user).

20. With respect to claim 7,

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Yellepeddy further discloses wherein the persistent data store comprises a table (see Yellepeddy [0064], where These multiple local tables are then combined to created a joined table ("JT") by a table joining function (45)).

21. With respect to claim 9,

Thatcher further discloses wherein each object comprises an entity (Thatcher Fig. 1 e.g. User Object).

22. With respect to claim 10,

Thatcher further discloses wherein each entity comprises a unique identifier that is immutable and a name (Thatcher Fig. 1 e.g. User Object: Given Name, Last Name, Login Name).

23. With respect to claim 11,

Thatcher further discloses **wherein the name is mutable** (Thatcher Fig. 1 e.g. User Object: Login Name).

24. Concerning claims 15, 16 and 18,

The limitations therein have substantially the same scope as claims 4-6, 10, and 11. Therefore claims 15, 16 and 18 are rejected for at least the same reasons as claims 4-6, 10, and 11.

25. Concerning claims 23-25,

The limitations therein have substantially the same scope as claims 4, 6 and 10.

Therefore claims 23-25 are rejected for at least the same reasons as claims 4, 6 and 10.

26. Concerning claims 27-29,

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The limitations therein have substantially the same scope as claims 3, 5-6 and 10 because claims 27-29 are computer-readable medium claims for implementing those methods of claims 3, 5-6 and 10. Therefore claims 27-29 are rejected for at least the same reasons as claims 3, 5-6 and 10.

Response to Argument

27. On pages 10-13, Applicant argues that:

Yellepeddy Fails to Anticipate Claims 1-2, 8, 13, 19-20, 22, and 26

[0005] Claims 1-2, 8, 13, 19-20, 22, and 26 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Yellepeddy. In response, Applicant has amended the claims and, as amended, the claims are allowable over the cited documents.

Independent Claim 1

[0006] In light of the amendments presented herein, Applicant submits that the rejection of independent claim 1 is moot. Specifically, Yellepeddy does not disclose at least the claimed:

discovering, by the computing device, a format of a corresponding reference attribute in the third external object, the reference attribute and corresponding reference attribute having different formats and the format of the corresponding reference attribute being associated with an attribute in the central representation of the second object; and

propagating, by the computing device, the changed data to the third namespace to update the third external object, the propagating including

retrieving a value of the attribute in the central representation of the second object and updating a value of the corresponding reference attribute in the third external object based on the retrieved value.

[0007] Rather, the passages of Yellepeddy cited by the Examiner simply describe a metadirectory that joins tables from multiple databases for the same object (see paragraph 49). While values of the same object attribute may have slight variations in different databases (e.g., Robert Smith in one database, Bob Smith in another), Yellepeddy does not take into account different formats for permutations of an attribute (e.g., one format requiring a name and another requiring an email alias - see the paragraph beginning at page 21, line 22 of Applicant's Specification for an example of different formats of a reference attribute). Rather, Yellepeddy simply replicates each variation and treats those variations as unrelated data (see Yellepeddy paragraphs 27 and 28). Claim 1, in contrast, requires that a value of "an attribute in the central representation of the second object" which is associated with the format of the attribute receiving the change be retrieved. No such association or retrieval is described anywhere in Yellepeddy.

[0008] Consequently, Yellepeddy does not disclose all of the elements and features of this claim. Accordingly, Applicant submits that Yellepeddy does not anticipate this claim, and respectfully requests that the rejection of this claim be withdrawn.

Examiner disagrees because:

Yellepeddy teaches the claimed subject matter. In fact, Yellepeddy discloses

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discovering, by the computing device, a format of a corresponding reference attribute in the third external object, the reference attribute and corresponding reference attribute having different formats and the format of the corresponding reference attribute being associated with an attribute in the central representation of the second object (Yellepeddy [0078] – [0081] and Fig. 4 & 8 e.g. When the Joiner receives an update operation (81) for an entry in a directory, it performs an "apply" operation (82) on a selected entry in the metadirectory local table, creating a temporary modified entry containing the result of the update. This temporary modified entry is not written to the secondary storage (e.g. propagated to the other joined directories), however. The modified entry is compared (83) with the original (unmodified) entry to identify the differences between the original entry and the updated entry. If there are differences (84), then a differential update operation is created (86) containing only the changed fields in the entry and omitted the operations which result in no net change to a field. This differential update is then propagated (87) to the other directories in the metadirectory, and the original (unmodified) local copy of the entry is replaced by the temporary (updated) copy of the entry. As each of the content formats of the joined objects and directories of the metadirectory may be in different formats (e.g. NAB, DB2, etc.), in order to implement the differential change to the affected items, different update operations must be executed for different format objects and directories. The differential update is propagated in a common format, preferably LDAP, and converted to the necessary format of each joined object and directory by the metadirectory agents [as discovering a format (e.g. Notes NAB) of a corresponding

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reference attribute in the third external object (e.g. changed fields in the entry), the reference attribute and corresponding reference attribute (e.g. the affected items) having different formats (e.g. different format) and the format of the corresponding reference attribute being associated with an attribute in the central representation (e.g. Table Joining 45 of the metadirectory Joiner 10 in Fig. 4) of the second object (e.g. joined object)]); and

propagating, by the computing device, the changed data to the third namespace to update the third external object (Yellepeddy [0054], [0062] and Fig. 1 e.g. the Joiner propagates the changes, e.g. changes made to the telephone number [as updating the third external object] and home address attributes from other department, to the other directories [as the third namespace] within the metadirectory), the propagating including retrieving a value of the attribute in the central representation of the second object and updating a value of the corresponding reference attribute in the third external object based on the retrieved value (Yellepeddy [0081] and Fig. 4 & 8 e.g. If there are differences (84), then a differential update operation is created (86) containing only the changed fields in the entry and omitted the operations which result in no net change to a field. This differential update is then propagated (87) to the other directories in the metadirectory, and the original (unmodified) local copy of the entry is replaced by the temporary (updated) copy of the entry. As each of the content formats of the joined objects and directories of the metadirectory may be in different formats (e.g. NAB, DB2, etc.), in order to implement the differential change to the affected items, different update operations must be

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executed for different format objects and directories. The differential update is propagated in a common format, preferably LDAP, and converted to the necessary format of each joined object and directory by the metadirectory agents [as the propagating including retrieving a value (e.g. the differential update) of the attribute in the central representation of the second object (e.g. each joined object) and updating a value of the corresponding reference attribute (e.g. the differential update converted to the necessary format) in the third external object (e.g. the affected items) based on the retrieval value (e.g. the differential update)]).

The disclosures reasonably describe the argued limitation of "discovering, by the computing device, a format of a corresponding reference attribute in the third external object, the reference attribute and corresponding reference attribute having different formats and the format of the corresponding reference attribute being associated with an attribute in the central representation of the second object; and

propagating, by the computing device, the changed data to the third namespace to update the third external object, the propagating including retrieving a value of the attribute in the central representation of the second object and updating a value of the corresponding reference attribute in the third external object based on the retrieved value".

Conclusion

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

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28. The examiner requests, in response to this office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

29. When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the reference cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SyLing Yen whose telephone number is 571-270-1306. The examiner can normally be reached on Mon-Fri 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SyLing Yen Examiner Art Unit 2166

/SyLing Yen/

Examiner, Art Unit 2166

April 21, 2010